

ARCH 220: ARCHITECTURAL PROGRAMMING

Originator

zbecker

Co-Contributor(s)**Name(s)**

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Justification / Rationale

New Curriculum for the College of the Desert/Cal Poly 2+3 Architecture partnership that will bring a full Architecture Professional degree to the College of the Desert West Valley campus.

Effective Term

Spring 2022

Credit Status

Credit - Degree Applicable

Subject

ARCH - Architecture

Course Number

220

Full Course Title

Architectural Programming

Short Title

ARCH PROGRAMMING

Discipline**Disciplines List**

Architecture

Modality

Face-to-Face

100% Online

Hybrid

Catalog Description

Study of the role that architectural programming and behavioral factors play in the design of buildings. Architect's responsibility to respond to the physical, social and regulatory conditions of the building site and context.

Schedule Description

Study of the role that architectural programming and behavioral factors play in the design of buildings. Architect's responsibility to respond to the physical, social and regulatory conditions of the building site and context. Prerequisite ARCH 210 and ARCH 017

Lecture Units

3

Lecture Semester Hours

54

In-class Hours

54

Out-of-class Hours

108

Total Course Units

3

Total Semester Hours

162

Prerequisite Course(s)

ARCH 017 & ARCH 210

Required Text and Other Instructional Materials**Resource Type**

Book

Author

Demkin, Joseph

Title

The American Institute of Architects, The Architect's Handbook of Professional Practice

Edition

13th

Publisher

John Wiley and Sons, Inc.

Year

2001

ISBN #

978-1118308820

Resource Type

Book

Open Educational Resource

No

Author

De Chiara and Callender, Crobie.

Title

Time Saver Standards for Building Types

Edition

4th

Publisher

McGraw Hill

Year

2001

ISBN #

978-0070162792

For Text greater than five years old, list rationale:

This course covers historical perspective and materials from older texts and articles are appropriate.

Class Size Maximum

26

Entrance Skills

Plan energy efficient design strategies.

Requisite Course Objectives

ARCH 017-Plan energy efficient design strategies.

Entrance Skills

Develop an understanding of the relationship between site planning and envelop manipulation.

Requisite Course Objectives

ARCH 017-Demonstrate an understanding of the relationship between site planning and envelop manipulation

Entrance Skills

Analyze the appropriate design and planning solutions(s) for entry to "design competition".

Requisite Course Objectives

ARCH 017-Analyze the appropriate design and planning solution(s) for entry to "design competition."

Entrance Skills

Demonstrate understanding of building related sustainability issues.

Requisite Course Objectives

ARCH 210-Demonstrate understanding of building related sustainability issues.

Entrance Skills

Demonstrate understanding of the need for sustainable design.

Requisite Course Objectives

ARCH 210-Demonstrate understanding of the need for sustainable design.

Entrance Skills

Demonstrate understanding of the effect of the built environment on climate change.

Requisite Course Objectives

ARCH 210-Demonstrate understanding the effect of the built environment on climate change.

Entrance Skills

Demonstrate understanding of basic principles of energy and water conservation, IAQ, materials and implementation of daylight strategies.

Requisite Course Objectives

ARCH 210-Demonstrate understanding of basic principles of energy and water conservation, IAQ, materials, and implementation of daylight strategies.

Entrance Skills

Demonstrate understanding of site, passive and envelope strategies to reduce energy consumption and increase thermal comfort.

Requisite Course Objectives

ARCH 210-Demonstrate understanding of site, passive and envelope strategies to reduce energy consumption and increase thermal comfort.

Course Content

- This class will investigate the role that programming plays in the design of buildings. Students will establish a number of alternate strategies for the organization and distribution of spaces for a 20,000-30,000 SF building. This distribution of spaces will be affected by interior considerations such as circulation, light, flexibility, access, security, flow, curatorial strategy, orientation and functional affinities, and also by exterior considerations such as cultural context, location, topography, views, climate zoning and other code issues.
- Investigation of needs, social norms, the environment, regulatory requirements and context.
- Investigation of site-specific environmental and socio-cultural opportunities and constraints.
- Code requirements for the building and site.
- Relevant qualitative and quantitative attributes of a site as they relate to a program.
- Components of the building program, and how should these be organized.

Course Objectives

	Objectives
Objective 1	Demonstrated understanding of basic architectural elements including program organization and sequence.
Objective 2	Demonstrated understanding and application of various site analysis techniques.
Objective 3	Demonstrated understanding of the responsibility of an architect to respond to the physical, social and regulatory conditions of the built environment.
Objective 4	Demonstrated ability to apply digital graphic techniques to synthesize written and graphic information.
Objective 5	Demonstrate ability to test alternative outcomes against relevant criteria and standards.
Objective 6	Demonstrated ability to examine and comprehend the fundamental principles present in relevant architectural precedents.

Student Learning Outcomes

	Upon satisfactory completion of this course, students will be able to:
Outcome 1	Evaluate environmental and contextual conditions of a building typology.
Outcome 2	Identify relevant code requirements for building and site type, for zoning and land use, and for local and site-specific requirements.
Outcome 3	Evaluate relevant qualitative and quantitative attributes of a site as they relate to a program, spatial and functional relationships for the building program, and graphical representations regarding building analysis and building programming.

Methods of Instruction

Method	Please provide a description or examples of how each instructional method will be used in this course.
Collaborative/Team	One on one and team feedback of student projects.
Participation	Formal and informal in class presentations of students designs to faculty and outside critics.
Lecture	Presentation of topics in context.
Discussion	Discussion of assigned reading and written response exercises.
Other (Specify)	a.Lecture, films, slides, overhead projections b.Drawing site plans, floor plans, elevations, sections and details c.Axonometric and perspective drawings d.Development of models: wood, metal, Plexiglas e.Title 24 (State of California) Energy Calculations: micro-computer workshop f.Discussion of reading assignments g.Group critiques and design 'pin-ups' h.Individual desk critiques on all design strategies

Methods of Evaluation

Method	Please provide a description or examples of how each evaluation method will be used in this course.	Type of Assignment
Portfolios	Work produced for the lecture should inform studio designs and must be incorporated into studio presentations.	In and Out of Class

Critiques	Individual desk critique and class critique of student projects.	In Class Only
Student participation/contribution	Participation in discussion of the course topics and readings.	In Class Only
Group activity participation/observation	Midterm and final presentations of research and design outcomes to faculty and outside critics.	In and Out of Class
Computational/problem-solving evaluations	Site analysis and site design assignments.	In and Out of Class
Other	Weekly short form written answers responding to the assigned readings.	In and Out of Class
College level or pre-collegiate essays	1000 word narrative to be accompanied by diagrams describing the student's building program, circulation and lighting strategy.	Out of Class Only

Assignments

Other In-class Assignments

1. Discussion and quiz on reading assignments from required text and/or instructor "handouts".
2. Case studies of three buildings, of similar program to the studio project, analyzing the building's program adjacencies, circulation and lighting.
3. Present perspective and axonometric drawings of designs.
4. Develop and build models of wood, metal and plexiglass.
5. Prepare for group critiques (pin-ups) of design projects.

Other Out-of-class Assignments

1. Reading assignments from required text and/or instructor "handouts".
2. Room data sheets for each program component.
3. Diagrams explaining the relationship between rooms.
4. Prepare perspective and axonometric drawings of designs.
5. Develop and build models of wood, metal and plexiglass.
6. Prepare for group critiques (pin-ups) of design projects.

Grade Methods

Letter Grade Only

Distance Education Checklist

Include the percentage of online and on-campus instruction you anticipate.

Online %

50

On-campus %

50

Instructional Materials and Resources

If you use any other technologies in addition to the college LMS, what other technologies will you use and how are you ensuring student data security?

The college LMS will be the only technology used to hold student data.

Effective Student/Faculty Contact

Which of the following methods of regular, timely, and effective student/faculty contact will be used in this course?

Within Course Management System:

- Discussion forums with substantive instructor participation
- Online quizzes and examinations
- Regular virtual office hours
- Timely feedback and return of student work as specified in the syllabus
- Weekly announcements

External to Course Management System:

Direct e-mail
E-portfolios/blogs/wikis
Posted audio/video (including YouTube, 3cm mediasolutions, etc.)

For hybrid courses:

Orientation, study, and/or review sessions
Scheduled Face-to-Face group or individual meetings

Briefly discuss how the selected strategies above will be used to maintain Regular Effective Contact in the course.

Timely feedback and return of student work as specified in the syllabus
Discussion forums with substantive instructor participation
Online quizzes and examinations
Weekly announcements

Other Information**Comparable Transfer Course Information****University System**

CSU

Campus

California State Polytechnic University, Pomona

Course Number

ARC 2020

Course Title

Architectural Programming

Catalog Year

2015

Rationale

This COD course is a copy of the Cal Poly course and part of our four year 2 + 3 agreement with CSU Poly, Pomona.

MIS Course Data**CIP Code**

04.0901 - Architectural Technology/Technician.

TOP Code

020100 - Architecture and Architectural Technology

SAM Code

C - Clearly Occupational

Basic Skills Status

Not Basic Skills

Prior College Level

Not applicable

Cooperative Work Experience

Not a Coop Course

Course Classification Status

Credit Course

Approved Special Class

Not special class

Noncredit Category

Not Applicable, Credit Course

Funding Agency Category

Not Applicable

Program Status

Stand-alone

Transfer Status

Transferable to CSU only

General Education Status

Y = Not applicable

Support Course Status

N = Course is not a support course

Allow Audit

No

Repeatability

No

Materials Fee

No

Additional Fees?

No

Files Uploaded

Attach relevant documents (example: Advisory Committee or Department Minutes)

ARCH 220-CO Approval Ltr 0528.pdf

Approvals**Curriculum Committee Approval Date**

4/15/2021

Academic Senate Approval Date

4/22/2021

Board of Trustees Approval Date

5/21/2021

Chancellor's Office Approval Date

5/28/2021

Course Control Number

CCC000625162